

Message

From: Reed, Daryl [dreed@mt.gov]
Sent: 11/26/2019 4:26:16 PM
To: Greene, Nikia [Greene.Nikia@epa.gov]
CC: Bowers, Dave [dbowers@mt.gov]
Subject: FW: [EXTERNAL] Manganese, Zinc and Copper and their impact on Human Health in Butte. New Information Reported in today's Montana Standard
Attachments: Health study shows startling levels of metals in Butte babies.docx

From: Reed, Daryl
Sent: Tuesday, November 26, 2019 9:25 AM
To: Chambers, Jenny (JChambers@mt.gov) <JChambers@mt.gov>; Stoops, Thomas <TStoops@mt.gov>; Balliew, Carolina <Carolina.Balliew@mt.gov>; Walker, Brian <Brian.Walker@mt.gov>
Subject: FW: [EXTERNAL] Manganese, Zinc and Copper and their impact on Human Health in Butte. New Information Reported in today's Montana Standard

Attached is the MT Standard article in today's paper on a preliminary study by Dr. McDermott that shows infants born at St. James Hospital in Butte had elevated levels of Zn, Mn, and Cu in their meconium.

Below is a related email from Dr. John Ray. He summarizes the issues well including that it is difficult to separate the possible sources as historic or active mining but DEQ needs to be involved.

-Daryl Reed

From: John Ray; **Ex. 6 Personal Privacy (PP)**
Sent: Tuesday, November 26, 2019 5:54 AM

Ex. 6 Personal Privacy (PP)

Subject: [EXTERNAL] Manganese, Zinc and Copper and their impact on Human Health in Butte. New Information Reported in today's Montana Standard

While I realize that the Hailer and McDermott study on zinc, manganese and copper that was reported in today's Montana Standard is very, very, very preliminary, it was shocking to me and should be shocking to all who are interested in Butte's public health to read about the levels of copper, manganese and zinc in infants. While this is a very preliminary pre-study, it does raise concerns.

Interest in these three toxics has been pretty much confined, at best, to the effect on aquatic life, not humans. Arsenic, lead and mercury have driven the human health aspect of the cleanup. Zinc, manganese and copper have flown pretty much under the health radar when it comes to Superfund in Butte.

To point, the following questions are pertinent:

1. How can the current cleanup plans be amended to include **consideration** of these three toxics? Do they need to be amended? The consent decree is nearing completion. While we don't know where these individuals reported in the study lived, they may well have lived in the BPSOU operable unit. If so, these toxics should be considered. Also, if some lived in "The Flat," the Westside Soils RI/FS process which is occurring at present should investigate copper, zinc and manganese in the Flat. Failure to do the above would be a serious lapse in protecting public health.

2. How can active mining be considered in the equation? It is difficult if not impossible to distinguish the results of active mining versus historic mining. But that doesn't lessen the obligation to protect public health. There perhaps needs to be greater attention paid to the environmental effects of active mining, which is largely in the purview of MDEQ. MDEQ has not distinguished itself in this regard. Nevertheless, given the potential effect on the efficacy of the Superfund cleanup of active mining, EPA needs to be actively involved. For example, how many of these people came from the Greeley neighborhood? We don't know but EPA and MDEQ should pay particular attention to that area. There are obviously environmental justice concerns here. How will those be addressed?

3. How are citizens to make sense out of the conflicting array of health studies that have been released in the past few years? Currently, there are a confusing plethora of health studies all providing partial and contradictory answers to whether or not Butte is a safe place to live and work. These need to be analyzed and synthesized so that some kind of answer can be given as to whether or not Butte is safe when it comes to environmental toxics, whether from historic mining or active mining.

4. What can be done to address zinc, manganese and copper? They pose a threat to human health, Superfund is supposed to ameliorate such treats, so what will EPA and MDEQ do? Do we need a ROD amendment for BPSOU? Do we need an aggressive public education campaign?

I realize all of this is very preliminary. There is no need for panic. This was not a full blown study. But it raises alarm bells. **We need to get out in front of this. We need to be proactive.** If we don't respond, the public perception will be that there is a significant issue here. There may be. We need to take the lead on this or the situation will be defined for us and perhaps not in the way we would want. In any event, this is a potentially significant public health issue related to Superfund and needs consideration. We should not just dismiss this information.

Dr. John W. Ray

